

NORDIC SPRUCE A/B / 15 MM

CHARAC-TERISTICS

- O Tongue and groove all round, mini bevel all round, surface sanded with 150 grit, in accordance with EN standard 13990
 - O Standard finish: 2 x natural oiled
- O Fixed lengths: 1973 mm, 1453 mm on request
- O FSC on request
- O Wood moisture 9 % +/- 2 %



Thickness♥ Width ▶	3	1	=		₩	å	135 mm	Pcs./package
15 mm	•		•	•		0	•	8

• suitable installation; • conditionally suitable for underfloor heating. Depending on the additional system elements used, the recommended thermal resistance may be exceeded. Slower reaction time during heating/cooling must be expected! • = standard programme

Packing: 8 pcs./package

DiBt: building authority approval

Cracks: Non-continuous cracks are permitted, provided the overall impression is not affected. Continuous end cracks up to the length of the plank width may occur. Open cracks may be partially filled.

 $\textbf{Bark pockets:} \ \textbf{Up to a size of 2 cm}^2 \ \text{are permitted in 25 \% of the number of pieces}.$

Knots: Any number of knots up to a maximum size of half a board width and a maximum of 50 % of the number of pieces are permitted. Black point knots up to 15 mm are permitted. Black-edged knots up to 25 mm in diameter are permitted up to a maximum of 15 % of the total quantity, provided they are firmly attached to the wood structure on one side of the plank. Broken knots,

edge knots and cracks are permitted! Loose and fallen-out knots may be plugged with an endgrain dowel made from a branch of the same species of wood, in unlimited number. Larger open spots may be partially filled.

Discolouration: Natural discolouration is permissible. Blue stain is not permitted.

Resin pockets: A maximum of 5 per plank, up to a size of 2 cm² and 25 % of the number of pieces, are permitted. Resin pockets are not repaired, resin leakage is possible.

Pith ray: Permitted for 25 % of the total number of pieces. The length of the pith ray may be present over the entire length of the plank.

Pest infestation: Not permissible

Extract from standard EN 13990_2004-06-01

Based on a reference moisture content of 9 %.

Thickness: \pm 1,0 mm (according to chart 1)

Thickness of top groove side: \pm 0,25 mm (according to chart 1)

Width 135 mm: \pm 1,5 mm (according to chart 2)

Additional voluntary limitations of the manufacturer (based on EN 13629 for hardwood)

Length: ± 2,0 mm

Transverse curvature: ≤ 1,5%

 $\textbf{Longitudinal curvature horizontal up to 1 m length: } 2\ \% \ based on total length \\ \textbf{Horizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ based on total length \\ \textbf{Morizontal longitudinal curvature from 1 m length: } 4\ \% \ bas$

Longitudinal curvature vertical: 1 % based on total length Perpendicularity: max. 0,5 % of the plank width

Declaration of performance for solid wood flooring for interior use

No. FW85510500: Surface oil-Kneho | Bending resistant floor elements - components wood flooring system 3 | EPH Desden -TPC No. W-12-010 | EN 14342 : 2013

No. FW85510200: Surface unfinished | Bending resistant floor elements - components wooden flooring system 4 | EN 14342 : 2013 EN 2013

No. FW85510200: Surface lacquer-Kneho | Bending-resistant floor elements - components wooden flooring system 4 | EN 14342 : 2013 Harmonised technical specification Main features Performance Cfl,-s1 spruce, beech, oak Behaviour in fire Dfl.-s1 other wood species Emission (content) of formaldehyde E1 PCP ≤ 5 x 10-6n Emission of (content of) pentachlorophenol FN 14342:2013 no performance requirement defined Emission of other dangerous substances no performance requirement defined Breaking strength, sliding resistance, thermal conductivity Natural durability against fungal infestation according to EN 335 Technical characteristics Thermal resistance m²K/W =0,12 Lambda value (thermal conductivity) λ-value = 0,13



THE INSTALLATION OPTIONS:



Floating installation with clips 135/137 mm plank width



Installation with glue



Dry construction elements with underfloor heating (screwed to intermediate battens)



Installation with screws



Full-surface bonding on underfloor heating



Installation with clips on underfloor heating (screed or dry construction systems; floating "System FEEL WOOD")

Type of wood	λ-Value	m²K/W	Thickness [mm]	Width [mm]	এ	/	<i>'''!!</i>	<u></u>	▦	<u>#</u>
Spruce	0,13	0,12	15	135	•		•	•		0
Spruce	0,13	0,15	19	135	•	•	•	0	•	0
Spruce	0,13	0,19	25	135	•	•	•			
Pine	0,13	0,15	19	135	•	•	•	0	•	0
Larch Siberian	0,15	0,10	15	135	•		•	•	•	•
Larch Siberian	0,15	0,13	19	135	•	•	•	0	•	0
Larch Siberian	0,15	0,13	19	178		•	•			
Larch Siberian	0,15	0,17	25	135	•	•	•			
Larch Siberian	0,15	0,17	25	178		•	•			
Larch European	0,12	0,16	19	135	•	•	•			
Stone pine	0,13	0,15	19	135	•	•	•	0	•	0
Oak	0,17	0,09	15	137	•		•	•		•
Oak	0,17	0,09	15	168			•	••		
Oak	0,17	0,12	21	137	•	•	•	•	•	•
Oak	0,17	0,12	21	168		•	•	••	••	
Oak	0,17	0,12	21	198		•	•			
Oak	0,17	0,16	27	188		•	•			
Ash	0,17	0,12	21	137	•	•	•	•	•	•

Glue (e.g. Sika 54)	0,08	0,03	2
Cork	0,08	0,04	3
Wood fibre board	0,07	0,04	3

 $\begin{array}{l} m^2 K/W \\ \lambda \text{-Value} \end{array}$

thermal resistance

Lambda value (thermal conductivity)

- suitable installation method
- •• suitable for underfloor heating; in case of deviations of the room climate outside the optimal range joint formation or cupping to a small extent is to be expected.
- conditionally suitable for underfloor heating; depending on additionally used system elements, the recommended thermal resistance could be exceeded. Slower reaction time during heating/cooling is to be expected!